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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/808,875	03/25/2004	Guodong Zhang	I-2-0493.1US	6642

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EXAMINER	
ROSE, KERRI M	

ART UNIT	PAPER NUMBER
2616	

MAIL DATE	DELIVERY MODE
01/09/2008	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/808,875	ZHANG, GUODONG	
	Examiner	Art Unit	
	Kerri M. Rose	2616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *25 March 2004*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-20* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-6 and 11-16* is/are rejected.

7)☒ Claim(s) *7-10 and 17-20* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

1. Applicant's arguments, see paragraph 2 of page 15, filed 10/30/2007, with respect to the rejection(s) of claim(s) 1-5 and 11-15 under 103 have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of new reference Radpour (US 7,307,961). Applicant's second argument that Hluchyj does not teach blocking probability is persuasive. However, applicant's first argument that Gilbert does not teach evaluating each switching point is not persuasive. Column 8 lines 15-31 indicates that the distribution between uplink and downlink slots is periodically evaluated. When this happens the ratio of uplink to downlink slots, i.e. the switching point, is evaluated to find the optimal ratio. Therefore each switching point must be evaluated in order to determine which is best.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claims 1-5 and 11-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gilbert et al. (US 6,016,311) in view of Radpour (US 7,307,961).

4. In regards to claim 1, Gilbert discloses reallocating time slots between uplink and downlink communications in column 8 lines 24-31. Gilbert does not disclose taking blocking probability and average delay into account when determining the new allocations.

5. Radpour discloses determining the maximum number of users using blocking probability in column 3 lines 35-40.

6. It would have been obvious to one of ordinary skill in the art to consider QoS measures such as blocking and average delay when allocating resources, as taught by Radpour, when reallocating resources between uplink and downlink connections, as taught by Gilbert, because taking such issues into account helps to maximize users while maintaining acceptable service quality, as taught by Radpour in column 2 lines 25-37.

7. In regards to claim 2, Hluchyj discloses determining whether the blocking probability is less than or equal to the required blocking probability in column 5 lines 4-15 and in figure 5 element 512.

8. In regards to claim 3, Hluchyj discloses taking service type into account in figure 5 element 504.

9. In regards to claim 4, Hluchyj discloses determining whether the average delay is less than or equal to the required average delay in column 5 lines 4-15 and in figure 5 element 512.

10. In regards to claim 3, Hluchyj discloses taking service type into account in figure 5 element 504.

11. Claims 11-15 are rejected upon the same grounds as claims 1-5. Figures 6-8 of Gilbert disclose apparatus to perform the method.

Allowable Subject Matter

12. Claims 6-10 and 16-20 are allowed.

13. The following is a statement of reasons for the indication of allowable subject matter: Claims 6-10 and 16-20 are directed towards dynamically allocating uplink and downlink

frequencies in a FDD system. Gilbert teaches away from using a FDD system in column 2 lines 5-30. Restivo et al. (2004/0208194) also teach away from using a FDD system. Paragraph 5 states that for practical purposes once the boundary between uplink and downlink has been set in a FDD system it cannot be changed.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kerri M. Rose whose telephone number is (571) 272-0542. The examiner can normally be reached on Monday through Thursday, 7:00 am - 4:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Doris H. To can be reached on (571) 272-7629. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

kmr

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